REMARKS/ARGUMENTS

I. Introduction:

Claims 26-30 are amended herein. Claims 1-24 and 26-36 are currently pending.

II. Claim Objections:

Claims 26-30 have been amended to replace the phrase "limiting the amount" with "limiting an amount", as requested by the Examiner.

III. Claim Rejections Under 35 U.S.C. 103:

Claims 1, 2, 4, 6-13, and 19-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,394,436 (Meier et al.) in view of U.S. Patent No. 5,581,543 (Natarajan).

Claim 1 is directed to a method for determining route redistribution at a device within a network. The method includes receiving an information packet from a neighbor source, the information packet identifying the source as a stub router and specifying route types that the source will advertise. Upon receiving notice of a failed link within the network, query packets requesting route information are sent only to neighboring devices that have not been identified as stub routers.

Meier et al. disclose a radio frequency local area network. Communication between a host computer and RF terminals is achieved by using a network of intermediate base stations to transmit data. In order to initialize the RF data communication system, a gateway and other nodes are organized into a spanning tree rooted at the gateway. The gateway is assigned a status of attached because it is the root node. Initially, all other bridges are unattached. The attached gateway (root) node periodically broadcasts a polling packet (HELLO packet) to all other nodes. The

polling packet includes the address of the sender and the hopping distance that the sender is from the root. The distance of a node from the root node is measured in hops times the bandwidth of each hop. The root node is obviously zero hops away from itself. Meier et al. do not show or suggest receiving an information packet from a neighbor source, where the information packet identifies the source as a stub router and specifies route types that the source will advertise. In rejecting claim 1, the Examiner refers to the root node of Meier et al. as a stub router. However, the root node simply sends out HELLO packets to the network. There is nothing in the HELLO packet that identifies the root node as a stub router or specifies route types the root node will advertise. The HELLO packet simply identifies the root node as the sender, since the HELLO packet includes the address of the sender. The root node is not identified as a stub router (e.g., a router to which query packets requesting route information are not sent).

The Natarajan patent is directed to a communication network and method which respond to a failed link. The network includes a number of switching nodes and a route-determining node. The network includes a gateway which couples to any number of telephonic devices. The route-determining node may also operate as a gateway or a gateway may operate as a route-determining node. Gateways 22, subscriber units 26, and route-determining nodes 28 use RF communications to communicate with one another through a constellation 30 of switching nodes. The route data that is defined by the route-determining node includes routes to the gateways, subscriber units, and switching nodes. Thus, route information is obtained and updated for all of these nodes. The route-determining node defines a priority routing for the entire network. When a link fails, the switching nodes terminating the link implement an interim rerouting procedure. The route-determining node then updates the routing definitions. Shortest path routes for nodes isolated by the link failure are revised to omit the failed link and shortest path routes for non-isolated nodes and in route trees which do not include the failed link are not changed. Natarajan does not show or suggest sending query packets requesting route information only to neighboring devices that have not been identified

as stub routers. Query information is sent to all nodes (including all neighboring devices) to determine if there is a failed link. If a failed link message is detected, the route-determining node generates updated routing data. There are no stub routers, which identify themselves as stub routers to the route-determining node, or do not receive query packets requesting routing information. In rejecting claim 1, the Examiner refers to col. 9, line 65 – col. 10, line 18. This section of the patent discusses an outer program loop which evaluates different switching nodes in a destination node role, and an inner programming loop which evaluates a different route tree for the destination node. These programs are used to identify a failed link and revise routing data. All switching nodes are evaluated in a destination node role. A query step determines whether all destination nodes have been evaluated.

Applicant's invention, as set forth in claim 1, is particularly advantageous in that it provides a reduction in router traffic to stub nodes and processing load for central nodes, thus, permitting faster route convergence and greater scalability for networks with a large number of remote routers. Neither Meier et al. nor Natarajan, either alone or in combination, show or suggest a stub router that specifies route types that it will advertise and does not receive query packets requesting route information, when notice of a failed link is received and query packets are sent out to neighboring devices, as set forth in claim 1.

Accordingly, claim 1 is submitted as patentable over Meier et al., Natarajan, and the other prior art of record.

Claims 2-13, depending either directly or indirectly from claim 1, are submitted as patentable for the same reasons as claim 1.

Claim 19 is directed to a computer program product for determining route redistribution and claim 21 is directed to a computer system for determining route redistribution. Claims 19 and 21 are submitted as patentable for the reasons discussed above with respect to claim 1. Claim 20, depending from claim 19, is submitted as patentable for the same reasons as claim 1.

Claims 14, 15, 17, 22-24, 26-30, 32, 34, and 36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,673,031 (Meier) in view of Natarajan.

Claim 14 is directed to a method for reducing query generation for route redistribution within a network. The method includes receiving information at a router identifying the router as a stub router, sending an information packet from the stub router to neighboring devices, and upon receiving a query for route information other than the type specified in the information packet, sending a response packet with routes identified as inaccessible. The information packet identifies the source as a stub router and specifies route types that the stub router will advertise.

Meier discloses a redundant radio frequency network having a roaming terminal communication protocol. The network utilizes a polling communication protocol which requires that a roaming terminal wishing to initiate communication must first determine that the channel is clear by listing for an entire interpoll gap time. In addition to source and destination addresses, each network packet includes a spanning tree identifier in the header. A non-default spanning tree identifier can be entered into the root node and advertised to other nodes in HELLO packets. Root nodes transmit HELLO packets at calculated intervals.

In rejecting claim 14, the Examiner refers to col. 13, lines 23-42 of the Meier patent. This section of the patent lists the contents of the HELLO packet (source address, destination address, distance to root, seed value, hello slot displacement, spanning tree identifier, priority of root node, device identifier of root node, descendent count, pending message list, detached node list). The HELLO packet does not identify a node as a stub router or specify route types that the stub router will advertise, as required by claim 14. Furthermore, there is no disclosure of receiving information at a router which identifies the router as a stub router.

The Natarajan patent, described above, fails to show or suggest sending a response packet with routes identified as inaccessible, upon receiving a query for route information other than the type specified in an information packet.

Accordingly, claim 14 is submitted as patentable over Meier, Natarajan, and the other prior art of record.

Claims 15-18, depending directly from claim 14, are submitted as patentable for the same reasons as claim 14. Claims 22 and 24 are directed to a computer system and claim 23 is directed to a computer program for reducing query generation for route redistribution and are submitted as patentable for the same reasons as claim 14. Claims 31-36, depending directly from claim 22, are submitted as patentable for the same reasons as claim 22.

Claim 26 is directed to a computer-implemented method for route redistribution and includes receiving information at a router identifying the router as a stub router; and limiting the amount of route information sent by the stub router to a neighboring device in response to a query for route information, wherein limiting the amount of route information sent by the stub router comprises limiting the route information to only connected routes.

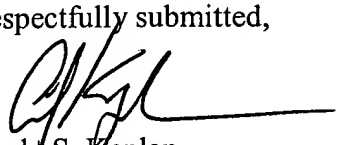
As previously discussed, Meier does not disclose receiving information at a router identifying the router as a stub router. In rejecting claim 26, the Examiner refers to step 116 of the flowchart shown in Fig. 9. This step involves generating a shortest path definition that does not include a failed link. The process described with respect to step 116 does not address responding to a query for route information. Moreover, there is no limiting of route information sent by a router in response to a query. Natarajan simply describes how the route-determining node generates a revised route which excludes the failed link.

Accordingly, claim 26 is submitted as patentable over Meier, Natarajan, and the other prior art of record. Claims 27, 28, 29, and 30 are also submitted as patentable for the reasons discussed above with respect to claim 26.

IV. Conclusion:

For the foregoing reasons, Applicant believes that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8695.

Respectfully submitted,



Cindy S. Kaplan
Reg. No. 40,043

RITTER, LANG & KAPLAN LLP
12930 Saratoga Ave., Suite D1
Saratoga, CA 95070
Tel: 408-446-8690
Fax: 408-446-8691